adequate resolution, and the size of the detector array. Radiation entering more obliquely does not normally fall on the detector array directly and indeed for such rays the imaging capability of the lens may be impaired. This is illustrated in Figure 1 which shows rays from a distant scene falling on a lens 1 and, possibly after passing through a filter 4, form an image on the detector array 2 placed in the focal plane of the lens. Rays such as AA' and BB' give rise to elements of an image of acceptable quality and the detector array may therefore be placed so that it is illuminated by such rays. More oblique rays such as CC' give rise to a distorted image of unacceptable quality for the accuracy of imaging required and fall outside the detector array. Rays incident at angles which give rise to acceptable images are said to be within the normal angular aperture of the lens. More oblique illumination is usually prevented from falling on the array by stops and by blackening the interior of the equipment. An arrangement is described which utilises these oblique rays so that the normal operation of the array is enhanced by some sensitivity to more oblique illumination. These oblique rays could of course be used in combination with a larger detector array covering the area where rays such as CC' approximately converge, but the additional expense of employing a larger detector array and a larger aperture filter may be undesirable. The arrangement to be described can be used to enhance sensitivity, albeit without imaging, outside the portion of the scene which is normally imaged. No such arrangements are required where individual detectors are used to monitor events without imaging, as the angular aperture, for example that determined by a window, can be varied at will, and the question of image quality does not arise.

Please replace the paragraph bridging page 2 and page 3 with the following paragraph:

However where an array of detectors is used with a lens to focus an image of the scene on to it, it is desirable to test not only that the window remains clean but also whether each element of the array continues to operate. For this purpose it is necessary to irradiate all the elements (but not necessarily simultaneously) of the detector array from the test source through the window whilst shielding the elements from direct exposure

to the source of radiation. As a lens is used to focus the radiation from the external scene on to the detector array simple arrangements that are used with single detectors cannot be used.

IN THE CLAIMS:

Please amend the claims as follows:

1. (Amended) Radiation detection apparatus capable of detecting and locating events in a scene under surveillance, comprising:

a detector array and a lens arranged to define a first field of view of the apparatus and to provide a single focussed image of a distant scene on the array; and

a reflector arranged between the plane of the array and the plane of the lens to define a second field of view which extends beyond the first field of view and to reflect onto the detector array radiation entering the lens from outside the first field of view.

2. (Amended) Apparatus as claimed in claim 1 in which the lens is plano-convex and a planar surface of the lens is directed towards the scene.

3. (Amended) Apparatus as claimed in claim 1 in which the reflector has cylindrical symmetry about an optical axis of the lens.

4. Apparatus as claimed in claim 1 in which the reflector has one or more convex reflecting surfaces.

5. Apparatus as claimed in claim 1 in which the reflector has one or more planar reflecting surfaces.